tions and the stochastic model of Lecar-Nossal. Other models for myelinated nerve, striated muscle, and cardiac Purkinje fibers are also included.

The second part of the book delves, specifically, into the mathematical theory which is relevant to the HH equations and more generally to physiological problems such as nerve conduction. Cronin, a mathematics professor experienced in the field of mathematical biology, begins with a discussion of some fundamental issues such as existence, uniqueness, and stability of solutions. She continues with an interesting treatment of autonomous differential equations and their periodic solutions. The majority of this section, however, is devoted to the introduction and application of models of singularly perturbed systems, the FN equations serving as the primary example. Using that example, the author demonstrates the advantages of this approach for producing important qualitative explanations for such phenomena as refractory periods and anodal break excitation. She completes the book with a mathematical analysis of physiological models derived from voltage-clamp experiments, including brief references to cable theory and the full HH equations (which combine voltage-clamp equations and cable theory to produce a system of nonlinear partial differential equations).

I thoroughly enjoyed this book. It is complete, well written, and well organized. The physiological discussion is good and largely accurate, with the exception of one small error concerning firing frequency in the HH model. The mathematical discussions are concise and insightful with references to the proofs included, but not the proofs themselves. As a graduate student in the neuroscience program, I found this book to be the best synthesis on the subject that I have read to date. I highly recommend the work to researchers and graduate students in neuroscience, mathematics, and anyone interested in mathematical modeling of physical systems.

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FUNDAMENTALS OF ENDOCRINOLOGY. By W. Roy Slaunwhite, Jr. New York, NY, Marcel Dekker, Inc., 1988. 422 pp. $45.00.

Fundamentals of Endocrinology is an introductory textbook designed for graduate, medical, and advanced undergraduate students. Dr. Slaunwhite, who teaches at SUNY-Buffalo, wrote it in response to his inability to find an adequate text for his students. The author is correct in stating that many of the existing books on this area slight the many "burgeoning and exciting discoveries regarding the biochemical aspects of endocrinology." With respect to this criticism, Dr. Slaunwhite has done an excellent job of presenting recent advances in this field in the form of an introductory text.

This volume is arranged differently from many other endocrinology textbooks. Rather than organizing by gland, Dr Slaunwhite organizes his chapters by biological function (i.e., salt and water metabolism, fuel metabolism). The internal organization of the chapters is well done and should be of great assistance to the student. Each chapter begins with a biological overview; clinical aspects of the material are discussed at the end of each. In addition, relevant experimental techniques as well as current directions of research are discussed.

What is clearly conveyed in this book is Dr. Slaunwhite's excitement about

endocrinology. For example, in the introduction, Dr. Slaunwhite enthusiastically presents a brief history and evolution of the field. In addition, he mentions the historical importance of many of the discoveries he presents.

It is evident that this book was not designed as a monograph for students who desire only the essentials of endocrinology. Much of the volume's emphasis is on the biochemistry of endocrinology; amino acid sequences of polypeptide hormones are discussed, research methods are discussed, and there is an emphasis on second messenger systems. That the range of topics explored is so broad is both a strong point and also a fault, however. As an introductory text, this book may be read very easily. The writing is clear and the figures are useful, yet too much is covered too quickly. Greater emphasis is placed on the biochemical and experimental aspects of endocrinology, thereby sacrificing coverage of the physiology and clinical aspects of the endocrine system. For example, in the chapter on the "Nutrition and Regulatory Polypeptides of the Gastrointestinal Tract," there is a great deal of emphasis on how the various hormones were discovered, purified, and named. The number of amino acids as well as the amino acid sequences of these hormones are also discussed.

This volume does a good job of covering a great deal of material. The problem with the book is similar to the difficulty encountered by many medical school professors who must teach a subject such as endocrinology to both medical and graduate students. The medical students desire essentials and clinical relevance, while the graduate students desire an emphasis on research and experimental techniques. This text tries to balance the demands of both of these two groups.

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FASTING GIRLS. THE EMERGENCE OF ANOREXIA NERVOSA AS A MODERN DISEASE. By Joan Jacobs Brumberg. Cambridge, MA, Harvard University Press, 1988. 366 pp. $25.00.

In *Fasting Girls,* Joan Jacobs Brumberg traces the history of female self-imposed starvation from medieval times to the present, when anorexia nervosa is an increasingly prominent disease. While many current thinkers contend that out society's preoccupation with thinness and a "perfect" female body are major causative factors in anorexia, Brumberg places the disease in an interesting and broader historical, medical, and social context. She identifies self-imposed starvation as a phenomenon which has afflicted primarily adolescent girls, and examines the particular circumstances which contributed to the genesis of the anorexic during each era of history.

Brumberg describes the evolution of both medical and public perception of self-starvation, since this behavior was not always viewed as a symptom of disease. In medieval times, women who claimed to live without eating were considered holy women. They captured public attention and admiration and often reaped material profits. In the eighteenth and nineteenth centuries, some of the "fasting girls" became the target of a struggle between the materialism of medicine and the spiritualism of religion. Brumberg describes how the idea of living without food symbolized the religious belief in mind-body dualism, and how it angered the new empirical physicians who maintained it was impossible to live without eating. The author claims she is using "food refusal and control of appetite as an indicator of *mentalities* in transition," and